

# Reducing Caloric Intake is Most Sustainable!

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Due to rising income and urbanization, defense foods that are high in refined fats, refused sugars, oils and meat there has become an epidemic in the overconsumption of calories, resulting in obesity which has doubled since 1980 (Popkin, 2014).

The increase of caloric intake and demand for food causes an increase in land use and GHG emissions. This trend is not sustainable and requires our immediate action.

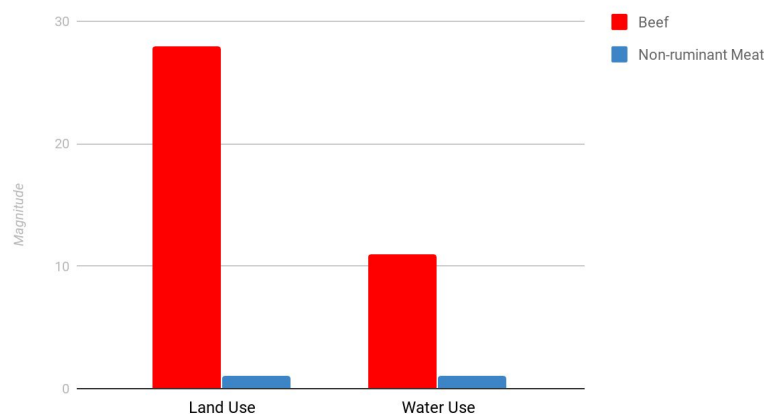
## Effects of Reducing Obesity on Land Use and GHG Emissions

Scenario	Reduction in Land Use (Million HA)	Avoided GHG Emissions from land-use (Mil. tons CO <sub>2</sub> E)	Reduction in GHG Emissions from production (Mil. tons CO <sub>2</sub> E)
"GHG"= Greenhouse Gas			
Halve Obesity	138	34,564	194
Eliminate Obesity	92	19,906	126

If calorie consumption was reduced across all food types equally (as seen above) land use would decrease by 90 million hectares in the Halve Obesity and Overweight scenario and by 140 million hectares in the Eliminate Obesity and Halve Overweight scenario. The avoided future emissions from excessive land-use due to the excess demand of food, would be 19.9 billion tons of CO<sub>2</sub> for the former and 34.6 billion tons of CO<sub>2</sub> for the latter (Dumas, 2016).

Eating 1/3 less protein, and focusing on plant based alternatives as well as free-range animals could decrease GHG up to 35% and land use up to 50-70% and decrease the 40% of waste generated per year (Tilman, 2014).

Land and Water Usage of Beef versus Other Proteins



For all food types, the annual emissions from land-use change (shown above in orange) are higher in consumption of beef that generates 19 tons of Carbon Dioxide. Beef requires 28 and 11 times more land and water and emits 5 times more GhG than non-ruminant protein sources, e.g. chicken, pork, eggs, (Dumas, 2016).

Increasing greenhouse gases and land use have a terrible impact on the sustainability of our planet. Increased emissions due to livestock and agricultural practices warm the planet, destroying habitats and decreasing the longevity of resource availability. An exploitation of land due to the exorbitant amount of resources needed to facilitate animal growth, destroys habitats, pollutes water, and degrades soil. Reducing caloric intake is an effective solution to these problems.

1. Reduce overconsumption of calories
2. Reduce consumption of animal-based foods
3. Reduce consumption of beef specifically